

considers the enormous amount of material from this region, nearly 11,000 specimens, which has been in Dr. Calvert's hands. As we should expect, these new species occur most frequently among the smaller Zygoptera, the genus *Argia* containing the surprisingly large number 22 (as against 26 species previously known). The presence of such an array of the smaller, more inconspicuous species is due not only to the very careful analysis of the material, but it is in a good measure traceable to the recent collecting trips of a number of experienced odonatologists (besides Calvert himself) into this region. The collections and notes made by these gentlemen, fully accredited in the work, have added largely in many ways to the value of the paper.

This work of Calvert's stands alone in American odonatology. The only paper of sufficient scope to be in any way comparable is Hagen's Synopsis of N. A. Neuroptera (1861) and that was pioneer work. But for that matter there are few works in the whole field of systematic entomology which can be compared with this when we consider the amount of material studied as well as the thoroughness, care and painstaking effort with which all the details of the material have been searched and weighed. It is a model of modern systematic entomology and the reviewer heartily recommends to all students of systematics a careful consideration of the methods employed by Calvert in the pursuit of this work.\* The elimination of "snap" judgment, and even to a great degree, of the personal equation, by long series of measurements in the study of genera, species and variations, may not appeal strongly to some entomologists, but it is scientific and assures a safe basis for permanence of results.

## PROCEEDINGS OF THE NEW YORK ENTOMOLOGICAL SOCIETY.

MEETING OF OCTOBER 6, 1908.

Held at the American Museum of Natural History, President C. W. Leng presiding, with eleven members and three visitors present.

The librarian, Mr. Schaeffer, reported the receipt of the following exchanges since May, 1908.

Bull. 46 and 48, University of Montana.

Mittheil. a. d. Zool. Mus. in Berlin, III, No. 4 ; IV, No. 1.

The Polymorphism of Ants, by W. M. Wheeler.

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\* See "Science," Nov. 13, 1908, for Calvert's own account of his methods.

- Honey Ants with a Revision of the American Myrmecocysti, by W. M. Wheeler.  
 Vestigial Instincts in Insects and Other Animals, by W. M. Wheeler.  
 The Ants of Texas, New Mexico and Arizona, by W. M. Wheeler.  
 The Ants of Casco Bay, Maine, with Observations on Two Races of *Formica sanguinea* Latr., by W. M. Wheeler.  
 Berliner Ent. Zeitschr., LII, Nos. 3 and 4; LIII, No. 1.  
 Zeitschr. f. Wiss. Ins. Biol., III, Nos. 1-7; IV, Nos. 4-7.  
 Insect World, XII, Nos. 4-6.  
 Canadian Ent., XL, Nos. 6-10.  
 Wiener Ent. Zeitg., XXVII, Nos. 6-8.  
 Deutsche Ent. Zeitschr., 1908, Nos. 3 and 4.  
 Hore Soc. Ross. XXXVIII, No. 3.  
 Proc. Am. Acad. Arts and Sci., XLIII, Nos. 18-22.  
 Verhandl. d. K. K. Zool. Bot. Gesel. Wien, LVIII, Nos. 4 and 5.  
 Proc. Amer. Philos. Soc., XLVII, No. 188.  
 Bull. de la Soc. Ent. d'Egypt, 1908, No. 1.  
 Bull. Buffalo Soc. Nat. Hist., IX, No. 1.  
 Chicago Acad. Sci. Special Publ., No. 2, 1908.  
 Bull. de Lab. de Zool. Gen. Agraria, Vol. II.  
 Revue Russe d'Entomologie, VII, Nos. 1, 2 and 3.  
 Bericht über d. Zool. Mus. Berlin, 1908.  
 Bull. della Soc. Ent. Italiana, XXXVIII, Nos. 3 and 4.  
 Stett. Ent. Zeitg., LXIX, No. 12.  
 Brooklyn Inst. Mus. Sci. Bull., I, No. 14.

Mr. Davis proposed as active members of the society: Roy W. Miner, American Museum of Natural History; Charles L. Pollard, New Brighton, N. Y.; Charles E. Sleight, Paterson, N. J.; for Prof. Wheeler Mr. Davis also proposed Dr. Alex. Petrunkevitch, Short Hills, N. J.

On motion of Mr. Schaeffer the by-laws were suspended and the secretary empowered to cast a single ballot for the election of the proposed members.

Mr. Davis spoke of the trip of Alanson Skinner to the Hudson Bay Wilds, and read an account of the expedition from the New York Tribune of Sept. 14. Mr. Skinner brought back with him a number of insects, mostly Coleoptera collected at James Bay, and presented to Mr. Davis. These were exhibited. Among the specimens shown were *Cicindela hyberborea*, *Cicindela 12-guttata*, *Carabus mæander*, *Bembidium carinula*, *Silpha lapponica*, *Hippodamia fulcigera*, *Coccinella transversoguttata*, *Adelocera brevicornis*, *Crioccephalus agrestis*, *Neoclytus muricatus*, *Acmaeops proteus*, *Tetropium cinnomopterum*, *Corymbites appressus* and *Adoxus vitus*. Such widely distributed species as *Aphodius fmetarius*, *Monohammus scutellatus* and *Dia-brotica 12-punctata* were also represented in the collections.

The president called upon all of those present to give an account of their summer's collecting experience.

Mr. Southwick spoke of his arduous work in fighting insects in Central Park during the past summer.

Dr. Dow spoke concerning the excellency of the collecting at Clairmont, New Hampshire.

Dr. Zabriskie told of his trip through the Great Lakes where his collecting was incidental.

Mr. Barber spoke of his collecting experience in the Adirondack Mountains.

Mr. Harris, Mr. Dickerson, Mr. Schaeffer spoke briefly of their summer's work.

Dr. Younglove, of Elizabeth, N. J., spoke for a few minutes chiefly concerning instinct in insects.

Society adjourned.

#### MEETING OF OCTOBER 20, 1908.

Held at the American Museum of Natural History, President C. W. Leng in the chair, with fifteen members present.

The minutes of the two preceding meetings were read and approved.

The librarian reported the receipt of the following exchanges :

Deutsche Ent. Zeitg., 1908, No. 6.

Tijdschrift voor Entomologie, 1908, No. 2.

Proc. Amer. Philos. Soc., XLVII, No. 189.

Mr. John W. Angell, 235 West 76th St., was proposed as an active member of the society by Mr. G. W. Angell.

On motion of Dr. Zabriskie the by-laws were suspended and the secretary instructed to cast a single ballot for the election of Mr. Angell.

The president spoke of Professor Smith's fiftieth birthday and announced that at its celebration it was the intention of entomological friends to present a loving cup and requested that all so inclined contribute to raise the necessary funds.

Mr. G. W. Angell moved that the president appoint a committee of one to receive the contributions. Carried. The president appointed Mr. Dow.

On motion of Mr. Schaeffer a hearty vote of thanks was tendered to Mr. Miner for his efforts in securing to the society a suitable meeting room in the Museum building.

Mr. J. R. de la Torre Bueno spoke concerning the life histories of some of the aquatic Hemiptera. He spoke briefly concerning the egg-laying habits and development of the following forms: *Belostoma fluminea*, *Ranatra 4-dentata*, *Microvelia borealis*, *Gerris remiges*, *G. marginatus*, *G. canicularis*, *Tropobates pictus*, *Mesovelia bisignata*, *Hydrometra lineata*. All of these species, with most of their developmental stages, were exhibited.

Rev. J. L. Zabriskie spoke concerning the gall-making dipteron *Eurosta solidaginis* Fitch. He called attention to the definition of "ptilinum" in Williston's "North American Diptera," 3d ed., p. 22, which is as follows: "In the Cyclorhapha an inflatable organ capable of being thrust out through the frontal suture just above the root of the antennæ, and which is used by the imago in springing off the cap to the puparium when about to extricate itself." Words to the same effect are found in Dr. Smith's "Glossary of Entomology." Professor David Sharp gives a more extended explanation in the Cambridge Natural History, Vol. VI, p. 422. Early in the year 1878 Dr. Zabriskie was rearing some flies of this species from their galls on *Solidago canadensis* L., and had the opportunity of observing several imagines in the act of issuing, each from its own gall. Doubtless, as is usually the case, the larva when full-fed had bored a tunnel from its central cell straight to the outer surface of the gall leaving only the thin cuticle undisturbed to act as a sealed door over its refuge, and then returned to the cell for its long rest in its forming puparium. In the house during the early spring, the imagines began to issue. They had evidently